



USSN: 09/732,169

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AMENDMENT 37 C.F.R. 1.111 Address to: Assistant Commissioner for Patents Washington, D.C. 20231	Attorney Docket	CELL-004CON
	First Named Inventor	Henderson
	Application Number	09/732,169
	Filing Date	December 6, 2000
	Group Art Unit	1633
	Examiner Name	B. Whiteman
	Title: <i>Tissue Specific Adenoviral Vectors</i>	

Sir:

This amendment is responsive to the Office Action dated May 27, 2003, which set a three-month period for response.

Please amend the application as follows:

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1. (currently amended) A ~~cytolytic~~ replication competent adenovirus vector for selective cytolysis of a target cell comprising an adenovirus gene essential for replication under transcriptional control of a cell type-specific transcriptional response element (TRE), wherein said adenovirus vector causes selective cytolysis due to replication in said target cell.

2. (canceled)

3. (previously presented) The adenovirus vector according to claim 1, wherein the gene essential for replication is an adenoviral early gene.

4. (previously presented) The adenovirus vector according to claim 3, wherein the adenovirus early gene is E1A.

5. (previously presented) The adenovirus vector according to claim 3, wherein the adenovirus early gene is E1B.

6. (previously presented) The adenovirus vector of claim 1, wherein the gene essential for adenoviral replication is the adenovirus E4 gene.

7. (previously presented) The adenovirus vector of claim 1, wherein the gene essential for adenoviral replication is an adenovirus late gene.

8. (previously presented) The adenovirus vector of claim 1, wherein the cell type-specific TRE is prostate cell specific.

9-54 (canceled)

55. (previously presented) The adenovirus vector of Claim 3, wherein the adenovirus early gene is E2.

56. (previously presented) The adenovirus vector of claim 1, wherein the TRE is selected from the group consisting of a promoter and an enhancer.

57. (previously presented) The adenovirus vector of Claim 1, wherein the cell-type specific TRE is selected from the group consisting of an alpha fetoprotein TRE, a DF3-TRE, a tyrosinase-TRE, a CEA-TRE, a surfactant protein-TRE, and an ErbB2-TRE.

58. (previously presented) The adenovirus vector of Claim 56, wherein the promoter is selected from the group consisting of alpha fetoprotein, DF3, tyrosinase, CEA, surfactant protein, and ErbB2 promoters.

59. (previously presented) The vector of claim 1, wherein said vector contains a heterologous coding sequence that is expressed from said vector.

60. (previously presented) The vector of claim 1, wherein said vector is encapsulated in an adenovirus coat.

61. (currently amended) A cell comprising an adenovirus vector for selective cytolysis of a target cell comprising an adenovirus gene essential for replication under transcriptional control of a cell-type specific transcriptional response element (TRE), wherein said adenovirus gene essential for replication is selected from the group consisting of E1A, E1B, E2 and E4, and wherein said TRE functions in said target cell so that replication of the vector occurs in said target cell and causes selective cytolysis.

62. (previously presented) The cell of claim 61, wherein said TRE is selected from the group consisting of a promoter and an enhancer.

63. (previously presented) The cell of claim 62, wherein the cell-type specific TRE is selected from the group consisting of alpha fetoprotein, DF3, tyrosinase, CEA, surfactant protein, and ErbB2.

64. (currently amended) The target cell of claim 61, wherein said target cell is a tumor cell.

65. (previously presented) The cell of claim 61, wherein said vector encodes a heterologous gene product, and wherein said vector expresses said heterologous gene product in the cells of a target tissue.

66. (previously presented) The cell of claim 65, wherein said heterologous gene product provides anti-tumor activity in the cells of said tissue.

67. (previously presented) A method of producing a cell-type specific adenovirus vector, said vector comprising an adenovirus gene essential for adenoviral replication under transcriptional control of a cell-type specific TRE comprising culturing the cell of claim 61 and recovering said vector from said cell.

68. (currently amended) A cell comprising a cell-type specific adenovirus vector for selective cytolysis of a target cell, encapsulated in an adenovirus coat, said vector comprising an adenovirus gene essential for adenoviral replication under transcriptional control of a cell type-specific transcriptional response element (TRE), wherein said adenovirus gene essential for adenoviral replication is selected from the group consisting of E1A, E1B, E2 and E4, and wherein said TRE functions in said target cell so that replication of the encapsulated vector occurs in said target cell and causes selective cytolysis.

69. (previously presented) The cell of claim 68, wherein said TRE is selected from the group consisting of a promoter and an enhancer.

70. (previously presented) The cell of claim 69, wherein the promoter is selected from the group consisting of alpha fetoprotein, DF3, tyrosinase, CEA, surfactant protein, and ErbB2 promoters.

71. (currently amended) The cell of claim 68, wherein said target cell is a tumor cell.

72. (previously presented) The cell of claim 68, wherein said encapsulated vector encodes a heterologous gene product, and wherein said vector expresses said heterologous gene product in the cells of a target tissue.

73. (previously presented) The cell of claim 72, wherein said heterologous gene product provides anti-tumor activity in the cells of said tissue.

74. (previously presented) A method of producing a cell-type specific adenovirus vector encapsulated in an adenovirus coat, said vector comprising an adenovirus gene essential for

adenoviral replication under transcriptional control of a cell-type specific transcriptional response element (TRE) comprising

(a) culturing a cell comprising a cell-type specific adenovirus vector encapsulated in an adenovirus coat, said vector comprising an adenovirus gene essential for adenoviral replication under transcriptional control of a cell-type specific transcriptional response element (TRE), wherein said adenovirus gene essential for adenoviral replication is selected from the group consisting of E1A, E1B, E2 and E4, and wherein said TRE functions in said cell so that replication of the encapsulated vector occurs in said cell; and

(b) recovering said encapsulated adenoviral vector from the culture.

75. (previously presented) A producer cell line comprising the cell of claim 61.

76. (previously presented) A producer cell line comprising the cell of claim 68.

77-80. (canceled)